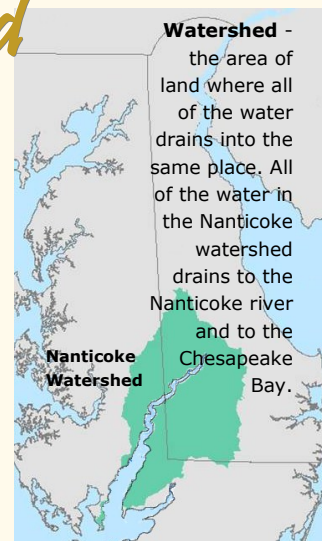


Nanticoke River Non-Tidal Wetland Health Report Card



The Nanticoke River watershed has been a focus for protection because of its wealth of rare fauna and flora and unique biological communities. Like other watersheds, the Nanticoke also provides valuable services such as protection from flooding and filtration of water for improved water quality. Despite its importance to both humans and wildlife, the Nanticoke River watershed has suffered losses in both the extent and function of these valuable wetlands. The following report card aims to summarize the current research on the health of the Nanticoke River Non-tidal Freshwater Wetlands.



Continue to page 2 for details on where we go from here to protect our wetlands from degradation and loss.....



Located in the Coastal Plain region, the Nanticoke River watershed historically was very rich in wetland resources which covered an estimated 46% of the land area. Artificial drainage through ditching and channelization of streams was used to reclaim wet areas for agricultural purposes and has changed the natural movement of water by draining surface water via ditches directly into the stream network. This has contributed to nutrient and sediment problems in surface waters. Sections of the Nanticoke River are listed on the state list of impaired waters (do not meet water quality standards) in both Maryland and Delaware.

Wetland types and their value to the landscape.

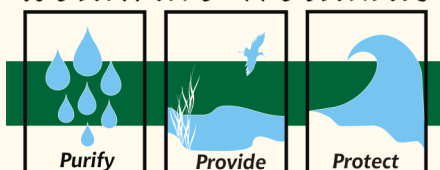
All wetlands provide critical services that contribute to our well being. Below are highlights of different types of wetlands found in the Nanticoke Watershed and some of the services they provide.

Flat Wetlands - located primarily in the area of land around the beginning of a stream or tributary and between major drainage areas. Precipitation accumulates on the soil surface until it can evaporate or is absorbed into the soil and groundwater, which rises in the winter and spring. Clay layers beneath the typically sandy soils can keep some flat wetlands saturated for extended periods. They represent more than 70% of the Nanticoke watershed's wetlands.

Riverine Wetlands - floodplains located along streams and rivers. In smaller systems, groundwater feeds the streams and associated wetlands and in larger systems, surface water from the associated streams during high water and storm events drains into these areas. They represent approximately 10% of the Nanticoke watershed's wetlands.

Depressions - occur in low lying areas that form depressions such as coastal plain ponds. They are seasonally wet and provide critical habitat for amphibians.

Delaware Wetlands



For more information:

The full Nanticoke Wetland Condition Report is available at:

<http://de.gov/delawarewetlands>

Wetlands Outreach Specialist:
302-739-9939



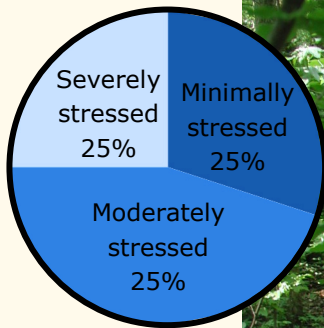
Wetland health

How stressors impact wetland health and how we can all work together for the Nanticoke!

How are wetlands monitored? Staff from the Department of Natural Resources and Environmental Control (DNREC) researched 191 wetland sites in the watershed with the Delaware Wetland Assessment Protocols in 1999-2000. The wetland assessment data garnered by the states of Maryland and Delaware was used to design a restoration strategy for the Delaware component of the watershed.

Below are the predominate stressors listed for each wetland type and recommendations to better manage or protect them. The Nanticoke watershed restoration plan can be found online at <http://de.gov/delawarewetlands>

Riverine Wetlands



D+

Stressors: Garbage dumping, invasive plant species, channelized streams, proximate roads

Recommendations:

- Strengthen buffer

regulations to protect wetlands from the stressors above associated with development.

- Ensure enforcement of existing County buffer regulations.

What you can do:

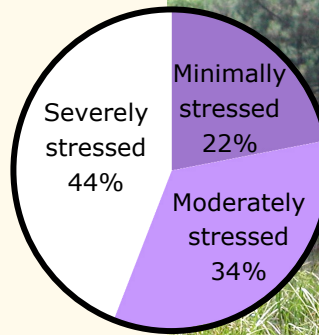
-Join or volunteer for the Nanticoke Watershed Alliance:
<http://nanticokeriver.org/>

-For more tips, including...

- Information for landowners on voluntary restoration and protection programs,
- How to get involved with local land use decisions to improve buffers and reduce building in and too close to wetlands, and
- the **Wetlands Public Participation Guidebook**

...visit the Delaware Wetlands website at
<http://de.gov/delawarewetlands>

Depressional Wetlands



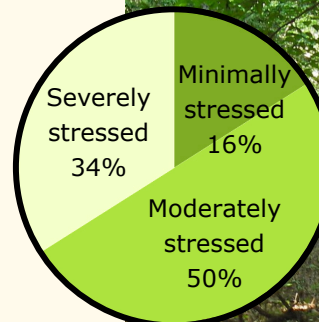
D-

Stressors: Filling or excavation, plowing, ditching

Recommendations:

- Better regulatory protection is needed at the State and/or County level because depressions are often considered "isolated" and therefore not protected by Federal regulations.

Flat Wetlands



C-

Stressors: Forestry activity, filling or excavation, ditching, proximate roads

Recommendations:

- Better regulatory protection is needed at the State and/or County level since flats are the most vulnerable for loss in the Nanticoke watershed.
- Increase landowner enrollment in voluntary conservation and restoration programs.
- Forestry best management practices should be utilized.